



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gang Liu
Serial No.: 09/827,764
Filed: April 6, 2001
Atty. Dkt. No: 0118-00101
Title: A Laser Driver For A Laser Sensing System

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TECHNOLOGY CENTER 2800

#8/B
11/6/02

Hon. Commissioner of Patents
Washington, D.C. 20231

AMENDMENT/RESPONSE TO OFFICE ACTION

Dear Sir:

In the Drawings:

Please substitute the presently submitted Figures 1 and 2 for originally filed Figures 1 and 2.

In the Specification:

Please amend the specification to read as follows:

Page 9, first full paragraph

(31)
The laser driver is preferably provided with a unique low drop out voltage protection circuit which is shown in Figure 5. This circuit uses a P-channel power MOSFET (Metal Oxide Silicon Field Effect Transistor) Q. When the polarity is correct, i.e. VPS+ is higher than the ground (GND) in potential, Q is turned on. Otherwise, when the input power supply polarity is wrong (reversed), i.e. VPS+ is lower than GND in potential, Q is turned off. This circuit is simple, low cost, and, in addition, the drop out voltage is low, usually 0.1 Volt or less. Comparing with a protection circuit built using a diode (the drop out voltage would be at least 0.3 Volt), this circuit consumes 3 or more times less power and passes the power supply voltage to the laser driver circuit without much power supply voltage being dropped out.